

1 IN UNITED STATES DISTRICT COURT

2 FOR THE DISTRICT OF HAWAII

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4 'ILIO'ULAOKALANI COALITION, a
5 Hawaii nonprofit corporation; NA 'IMI
6 PONO, a Hawaii unincorporated
7 association; and KIPUKA, a Hawaii
8 unincorporated association,

9 Plaintiffs,

10 vs. Civil No. 04-00502 DAE BMK

11 DONALD H. RUMSFELD, Secretary of Defense;
12 and LES BROWNLEE, Acting Secretary of the
13 United States Department of the Army,
14 Defendants.

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17 DEPOSITION OF ANDREW HOOD

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19 Taken on behalf of the Defendant at U.S. Attorney's
20 Office, PJKK Federal Building, 300 Ala Moana Blvd., Room
21 6-100, Honolulu, Hawaii 96813, commencing at 3:23 p.m.,
22 Wednesday, December 6, 2006, pursuant to Notice.

23
24 BEFORE: BARBARA ACOBA, CSR No. 412, RPR
25 Notary Public, State of Hawaii

1 APPEARANCES:

2 For Plaintiff: DAVID HENKIN, Esq.
3 ISAAC MORIWAKE, Esq.
4 Earthjustice
5 223 S. King St., Suite 400
6 Honolulu, Hawaii 96813
7

8 For Defendant UNITED STATES:

9 ROBERT M. LEWIS, Esq.
10 Environmental Law Division
11 U.S. Army Litigation Center
12 901 N. Stuart St., Suite 400
13 Arlington, Virginia 22203
14

15 HARRY YEE, Esq.
16 U.S. Attorney's Office
17 PJKK Federal Building
18 300 Ala Moana, Room 6-100
19 Honolulu, Hawaii 96813
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21
22 Also Present: ELENA ONAGA, Dept. of the Army
23 PATRICIA BILLINGTON, Army Corp. of
24 Engineers
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I N D E X

EXAMINATION BY:	PAGE
MR. LEWIS.....	4

E X H I B I T S

NO.	DESCRIPTION	PAGE
None marked		

1 Q. In this particular case, what duties were you
2 asked to perform by Earthjustice?

3 A. I was asked to perform a objective assessment
4 of the training areas where the Strykers will be
5 conducting maneuvers with respect to the
6 geomorphological and surficial erosion issues that may
7 or may not be associated with those.

8 Q. Did you consult with anybody else in
9 preparation?

10 A. No.

11 Q. And what conclusions have you reached about the
12 relation of Stryker training and erosion?

13 A. My conclusion, thus far, is that the level of
14 best management practices that I observed on both the
15 primary transport roads that we traveled upon on our
16 site visit and the off-road areas, that the best
17 management practices are not commensurate with the level
18 of impacts that I anticipate the Stryker vehicles
19 themselves will have on the watershed.

20 Q. And what do you base that opinion on?

21 A. My professional experience.

22 Q. What factors did you take into consideration in
23 forming this opinion?

24 A. There were numerous factors, one being my
25 knowledge of how erosion processes occur and what

1 impacts to the watershed accelerate those erosion
2 regimes, and my observations during our two-day site
3 visit on Thursday and Friday of last week of the actual
4 grounds where the training will be occurring.

5 Q. Have you seen a Stryker vehicle driving?

6 A. No.

7 Q. Did you see a Stryker vehicle on any of the
8 roads that you rode on?

9 A. No.

10 Q. Did you see a Stryker vehicle go off-road?

11 A. No.

12 Q. Do you know if Stryker vehicles will go
13 off-road?

14 A. Yes.

15 Q. And how do you know that?

16 A. The guys that took us around, we had a map
17 where there's going to be go zones that are either
18 directly adjacent to or at some distance from the
19 primary transport roads that they said these are where
20 they're going to be able to do off-road maneuvers and
21 training.

22 Q. And did you inspect those go and no go zones?

23 A. Yes, some of them.

24 Q. And which ones did you inspect?

25 A. I cannot recall all the specific names without

1 the map.

2 Q. Were there any particular features at these go
3 and no go zones that caused you to believe that Stryker
4 transportation there would cause erosion?

5 MR. HENKIN: Objection. Compound.

6 THE WITNESS: Yes, I did see indications that
7 the Strykers would be problematic from a surficial
8 erosion standpoint.

9 BY MR. LEWIS:

10 Q. And what did you see that caused you to think
11 that?

12 A. Exposed organic and mineral soils. Active head
13 cuttings along some of the roadways. Reeling and
14 gulleying in areas where the Strykers, I was told, had
15 been maneuvering up until the stoppage period in
16 October. Head cut gulleys at the intersection of some
17 of the roads and stream courses on the property.

18 Q. Did you see any evidence of Stryker vehicle --
19 of Stryker vehicles being driven in those areas?

20 MR. HENKIN: Objection. Vague.

21 THE WITNESS: I saw evidence of wheeled vehicle
22 impacts, and in discussions out at the site, I was told
23 that the Strykers had been out there, and I made the
24 conclusion that some of these impacts were associated
25 with the Strykers.

1 expect for the level of usage at these facilities; is
2 that correct?

3 MR. HENKIN: Objection. Misstates prior
4 testimony.

5 THE WITNESS: No. That's not correct. What my
6 conclusion was is that the transformation of some of
7 these areas where it was previously impervious areas had
8 been changed to impervious zones and that the storm
9 water management system and the expected nonpoint source
10 pollutants that will likely be generated from those was
11 not commensurate with the BMPs that the representative
12 out there told me they had installed to handle the storm
13 water runoff.

14 BY MR. LEWIS:

15 Q. What was not representative of the BMPs at the
16 multiple deployment facility?

17 A. Some of the best management practices did not
18 appear to be installed correctly.

19 Q. Which?

20 A. Those best management practices that represent
21 that would be, there was a series of what appeared to be
22 sediment detention basins along the -- I guess it would
23 be the west side of the former runway area where they
24 have the multiple deployment stations. They didn't seem
25 to be designed correctly in that the invert of the

1 sediment detention basin visually appeared to be at the
2 same invert elevation of their outlet culverts, which
3 would mean that water flowing in would then just flow
4 through the detention basin without being -- having a
5 lag time induced to filter out sediments and other
6 nonpoint source pollutants. I'm assuming, in a sense,
7 that that's what those were, but I haven't been able to
8 dig through the documents to look at all the CAD
9 drawings, but that's what it appeared to be because
10 there was also an emergency spillway structure built on
11 it.

12 In addition, at some of the culvert outlets,
13 both into defined stream channels, there was extensive
14 erosion that most likely occurred during a most recent
15 storm event out there, just based on the instability
16 that I saw in the sediments and some of the soils.

17 In addition, discussions with some of the --
18 there was a U.S. Army Corps. of Engineers representative
19 who was out there and I asked several questions about,
20 have you done any special provisions for storm water
21 BMPs? And he indicated, no, that they had just put a
22 curb and gutter system in to capture the runoff and
23 route it down into a stream course.

24 Q. And this was at the multiple deployment
25 facility?

1 they drain down to -- to Kua stream, which is an
2 impaired water body on the Department of Health's 319
3 Clean Water Act list. And I know that turbidity is one
4 of the issues with that stream that's impairing its
5 biological functions.

6 Q. Are there any other water bodies that you feel
7 are being impaired by Stryker training?

8 A. Yes.

9 Q. And what are they?

10 A. The stream courses that generate -- that are
11 part of the Lake Wilson Wahiawa reservoir water body,
12 which is the, I believe, the east range, which we did
13 our first tour through, and those sub basin streams that
14 flow into Waiakele stream.

15 And then on the Kahuku area, we went to
16 multiple sites where they're gonna be doing training,
17 and I don't know all the watershed names, and I haven't
18 had time to spend a lot of time looking at the maps to
19 figure out all the stream names up there, but it was my
20 opinion there would be increases in over land flow and
21 increases in surficial erosion generated from those
22 sites and that would be transported down to the
23 streamways and then further transported out to the
24 receiving waters around Kawela Basin and other terminal
25 locations of the streams.

1 A. From 19 -- April of 199 -- I believe it was
2 1995 until coming to Hawaii. November of 2000. And
3 then prior to that, I was a hydrologist for the U.S.
4 Forest Service in Idaho. And prior to that, I was a
5 hydrological technician for the Forest Service also in
6 Idaho. And then prior to that, I was a student at the
7 University of Arizona. And then I also did work at a
8 ranch where I was in charge of trail maintenance and
9 irrigation system, which is germane to this work.

10 Q. Regarding your professional opinion about the
11 potential for erosion on primary roads, what level of
12 use do you expect on primary roads?

13 MR. HENKIN: Objection. Vague and compound.

14 THE WITNESS: I don't know.

15 BY MR. LEWIS:

16 Q. Then why do you feel the level of BMPs is not
17 commensurate with the expected level of use?

18 A. Because I was told that the vehicles that will
19 be using it are 19 to 20 tons and that at one time there
20 may be as many as 30 vehicles during one training
21 maneuver using the road, but I didn't get from the
22 military folks that were accompanying us, like, how
23 often that will occur in a week or a month or whatnot.
24 They did make it clear that these areas -- that the east
25 range would be the primary driving school for the Army

1 into the stream itself, and it indicated to me that
2 there were no velocity breakers or erosion control to
3 arrest that at the -- at the kickouts where the water
4 was being concentrated.

5 Q. So it's your opinion that if any erosion occurs
6 through the use of vehicles, then that's a failing of
7 BMPs?

8 A. The objective of the BMPs is, to the extent
9 practicable, to achieve minimal -- to arrest sediments
10 that are generated from the surficial erosion. My
11 conclusion is that it would be nearly impossible not to
12 expose some earth via vegetation removal from the
13 vehicles. And it's a commonly accepted understanding in
14 erosion literature and in erosion discussions and people
15 that do this, you know, whether it's agricultural,
16 forestry, mining, off-road vehicles, whatever, that if
17 you remove the protective cover, erosion rates increase.

18 So BMPs that could capture sediments generated
19 from those sites and store them on site so they're not
20 conveyed through the system and into the stream courses
21 and stuff, would be effective BMPs. I believe that with
22 some customization to the BMPs out there and increases
23 in them, that that could be achieved.

24 Q. To what extent are your conclusions shaped by
25 the amount of rainfall that occurs?